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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

6WQ-SD

JAN 29 2009

January 23, 2009

Mr. Harry Anthony, P.E.,  
Chief Operating Officer  
Uranium Energy Corp  
100 East Kleburg, Suite 210  
Kingsville, Texas 78363

91 7108 2133 3935 1935 9183

**CERTIFIED MAIL**

Re: **Technical Notice of Deficiency #1**  
Application for Production Area Authorization  
Production Area Authorization Number UR03075PAA1  
Goliad Project Mine, Goliad County, Texas  
Tracking No. 12439166; RN105304802/CN603228461

Dear Mr. Anthony:

The Underground Injection Control (UIC) staff has reviewed Uranium Energy Corp's (UEC) application and technical report for the proposed production area authorization (PAA) prepared by signature date of August 26, 2008. Additional information, clarification and revisions are being requested in order for UIC staff to continue the technical evaluation of the PAA application. Please submit the required information within thirty (30) days of the date of this letter. Please note that we do not anticipate granting an extension of time to fulfill this request.

The deficiencies noted below follow the format of the Texas Commission on Environmental Quality (TCEQ) Class III UIC production area authorization application form. Please use corresponding item numbers in your response to this notice, and submit all requested information in triplicate. The information will be inserted into the appropriate places in the original application and its two copies. Any new or revised text page, table, figure, map or drawing should be clearly marked as a revision, dated and labeled appropriately for insertion into the application. Include an update application signature page and a technical report signature page. Engineering work submitted in response to this letter must be prepared, sealed, signed, and dated by a Texas professional engineer in accordance with the Texas Engineering Practice Act and Rules Concerning the Practice of Engineering and Professional Engineering Licensure.

### Attachment 2 Proposed Production Area Map

1. A comparison of the monitor well locations in Figure 1-4 and Figure 7-1 (Permit Map) indicates monitor wells BMW-19 and BMW-20 are located on the proposed aquifer exemption boundary. Based on the information presented on Figure 5-3 (Production Zone Piezometric Map), these two monitor wells are hydrologically downgradient from the area proposed for mining. If an excursion reached either of these two monitor wells, it would extend beyond the aquifer exemption boundary into an underground source of drinking water, thereby resulting in a violation of 30 TAC §331.5-Prevention of Pollution. As presently located, an excursion in either monitor wells BMW-19 or BMW-20 would result in violation of §331.5. Please revise the application to provide monitor wells in this downgradient area that meet the requirements of §331.103(a) and that are within the proposed aquifer exemption area a sufficient distance to preclude violation of §331.5.

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Attachment 4 Description of Production Area Geology and Hydrogeology

2. There is insufficient well coverage over southwest corner of proposed PAA to define the subsurface geology in this area. Please provide a cross section through this area. Staff particularly is interested in the thickness of the confining zone between Sand B and Sand C in this area.

Attachment 5 Contour Maps of the Production Area Geology and Hydrogeology

3. The water level data used to construct the potentiometric maps in Figure 5-3 and Figure 5-4, respectively, were not found in the application. Please revise the application to include these data or please indicate where in the application these data are located.

Attachment 6 Well Logs, Completion Reports, and Mechanical Integrity Tests

4. Logs for wells 32201-N119, 32210-126, and BMW-9 were not found in the application. Please revise the application to include copies of these logs.

Attachment 7 Hydrologic Test Results and Interpretation

5. Please revise the application to replace the black-and-white versions of figures 4.7, 4.8, 4.9, and 4.10 with color copies. The multiple graphs presented in these figures are difficult to differentiate in black-and-white.
6. On page 4-14, UEC states that the data from pump test using well no. PTW-1 required correction for barometric pressure changes. Please revise the application to include information on amount of correction that was applied to these data.
7. The well analyses in Appendix D indicate the Theis, Theis (Recovery), and Cooper-Jacob methods were used to determine aquifer transmissivity and storativity at each observation well. These methods are based on the assumption that the aquifer is screened across its entire thickness. None of the wells analyzed meets this assumption. Please revise the application to include a discussion on how this situation was addressed in the analysis of each well. Please include all equations used to determine transmissivity and storativity.

Attachment 8 Groundwater Analysis Reports

8. In accordance with the requirements of 30 TAC §25.1, the commission may accept environmental testing laboratory data and analyses for use in commission decisions regarding any matter under the commission's jurisdiction relating to permits or other authorizations, compliance matters, enforcement actions, or corrective actions only if the data and analyses are prepared by an environmental testing laboratory accredited by the commission under 30 TAC Chapter 25. No information was found in the application to document that the analytical data in Appendix A are from a laboratory that is accredited in accordance with the requirements of 30 TAC Chapter 25. Please revise the application to include information to demonstrate compliance with Chapter 25, or please indicate where in the application this information is located.
9. The following discrepancies were found between the data on the laboratory reports in Appendix A and in tables 5.1, 5.2, and 5.3, respectively:

9. The following discrepancies were found between the data on the laboratory reports in Appendix A and in tables 5.1, 5.2, and 5.3, respectively:

Well	Parameter	Table 5.1	Lab Report
OMW-5	Hg	0.0004 mg/l	0.004 mg/l
Well	Parameter	Table 5.2	Lab Report
PTW-4	Fe	0.0050 mg/l	<0.030 mg/l
RBLB-3	N-Ammonia	Nondetect	0.005 mg/l
	NO <sub>3</sub> -N	0.005 mg/l	Nondetect
Well	Parameter	Table 5.3	Lab Report
BMW-10	Fe	<0.030 mg/l	0.016 mg/l

Please revise the application to address these discrepancies.

Attachment 12 Updated Fluid Handling Requirements versus Capacity

10. On page 8-4 of UEC's August 7, 2007, application for a Class III injection well area permit, UEC stated that six pore volumes was assumed for aquifer restoration. Please indicate if the analysis of fluid handling requirements versus capacity provided in Table 7.2 is based on six pore volumes for restoration. Also, please indicate if a flare factor was included in this estimate, and please provide this flare factor. If this analysis was not based on the assumption of six pore volumes, or if a flare factor was not included, please revise this analysis to include at least six pore volumes and an appropriate flare factor.

Attachment 14 Proposed Control Parameters Upper Limits Table

11. On page 6-1, UEC states that the two proposed control parameters for excursion detection are chloride and conductivity. However, on page 6-7 UEC provides upper limits for three parameters: chloride, conductivity, and total dissolved solids. Please indicate if TDS will be used as a third indicator parameter, and revise Section 6 of the application as appropriate.

I am available to meet with you and/or your consultant to go over these items. If you desire to schedule a meeting or have questions about any of the items listed in this notice of deficiency, call me at (512) 239-6080. When responding by letter, please include mail code MC 130 in the mailing address.

Sincerely,



David H. Murry, P.G., Project Manager  
Industrial and Hazardous Waste Permits Section  
Waste Permits Division  
Texas Commission on Environmental Quality

DHM/ff

cc: ✓ Mr. Jose Torres, EPA Region 6, 6WQ-S